

Notice of Allowability**Application No.**

10/669,971

Applicant(s)

WINSLOW, NATHAN A.

Examiner

JAVIER G. BLANCO

Art Unit

3774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Response filed on March 10, 2009.
2. ☒ The allowed claim(s) is/are 1-3, 5-8, 13-15, 17, 19, 20, and 24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 3/11/2009; 12/27/2005; 12/17/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 4/13/2009.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Javier G. Blanco/
Examiner, Art Unit 3774

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 10, 2009 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Christopher A. Eusebi on April 16, 2009.

The application has been amended as follows:

Claim 1 (Currently Amended) A monolithic humeral head resurfacing implant comprising: a head having:

a hemispherical exterior articulating surface defining a terminating rim(~~,-said terminating rim defining a coupling portion on only a portion of the terminating rim~~);

a concave interior surface opposite said hemispherical exterior articulating surface;

an integral straight anchoring (~~device~~) stem having a textured outer surface configured to be directly coupled to bone, said anchoring (~~device~~) stem extending from said interior surface and being integral with the interior surface; and

an extended articulating surface defining a flange axially protruding from only a (~~the coupling~~) portion of the terminating rim of said hemispherical exterior articulating surface, said extended articulating surface operable to articulate with at least one of a bone and a ligament, said extended articulating surface having a pair of interior intersecting flat planar surfaces, said interior intersecting flat planar bone bearing surfaces being generally parallel to the integral straight anchoring (~~device~~) stem, wherein said extended articulating surface is located in a lateral region of said head when implanted in a patient, and wherein said pair of interior intersecting flat planar surfaces define a planar "V" shaped inner surface defined on the extended articulating surface.

Claim 5 (Currently Amended) The implant of Claim 1, wherein said (~~anchoring device stem is a short~~) stem (~~having~~) includes flutes.

Claim 6 (Currently Amended) The implant of Claim 1, wherein said (~~anchoring device~~) stem includes a first end proximate to said head and a second end distal to said head, said second end having a diameter that is smaller than said first end.

Claim 7 (Currently Amended) The implant of Claim 1, wherein said (~~anchoring device~~) stem includes a blasted finish.

Claim 9 have been cancelled.

Claim 10 have been cancelled.

Claim 11 have been cancelled.

Claim 13 (Currently Amended) A monolithic humeral head resurfacing implant comprising:

a humeral head having a hemispherical exterior articulating surface and a concave interior coupling surface, said hemispherical articulating surface terminating (~~generally~~) at a rim at a hemispherical equator (~~said rim having a coupling portion on only a portion of said rim~~);

an integral engagement stem configured to be directly coupled to bone, said stem extending from said head, said stem being integral with the concave coupling surface; and

~~(a flange extended surface protruding from the coupling portion of)~~ an extended articulating surface defining a flange axially protruding from only a portion of the terminating rim of said hemispherical equator of said hemispherical articulating surface and operable to articulate with at least one element of a coracoacromial arch, ~~(said flange and said concave coupling surface having at least two flat planar inner surfaces generally parallel to the integral engagement stem configured to prevent rotation of the head about an axis defining the hemispherical articulating surface)~~ said extended articulating surface having a pair of interior intersecting flat planar surfaces, said interior intersecting flat planar surfaces being generally parallel to the integral engagement stem, wherein said extended articulating surface is located in

a lateral region of said head when implanted in a patient, and wherein said pair of interior intersecting flat planar surfaces define a planar "V" shaped inner surface defined on the extended articulating surface.

Claim 19 (Currently Amended) A method for resurfacing a humeral head of an implant site, the method comprising:

resurfacing the humeral head so as to remove a portion of the humeral head leaving a resurfaced surface;

boring a hole into the humeral head;

resecting a portion of the humeral head so as to form a resected head having a pair of intersecting flat planar surfaces, said surfaces being generally parallel to the hole;
positioning a resurfacing humeral head implant adjacent said flat planar surfaces, after resecting (a) said portion of the humeral head to form (a) said pair of intersecting flat planar surfaces, said resurfacing head implant having a hemispherical exterior articulating surface which terminates at a rim at a hemispherical equator of the resurfacing humeral head implant, a concave interior surface, an integral engagement stem, and ~~(an extended articulating surface protruding from a coupling portion on only a portion of the hemispherical equator of said resurfacing humeral head implant head on the resurfaced surface of the humeral head)~~ an extended articulating surface defining a flange axially protruding from only a portion of the terminating rim of said hemispherical equator of said hemispherical exterior articulating surface, (said resurfacing head implant having an interior surface having a pair of interior surfaces being complementary with the pair of intersecting interior flat planar surfaces) said extended articulating surface having a

pair of interior intersecting flat planar surfaces, said interior intersecting flat planar surfaces of the flange being generally parallel to the integral engagement stem, wherein said extended articulating surface is located in a lateral region of said humeral head implant when implanted in a patient, and wherein said pair of interior intersecting flat planar surfaces define a planar "V" shaped inner surface defined on the extended articulating surface;

aligning the pair of (~~interior surfaces~~) interior intersecting flat planar surfaces of the flange with the pair of intersecting flat planar surfaces formed on the bone; and

positioning the extended articulating surface of the resurfacing humeral head implant in a lateral region of the resected humeral head so as to articulate with at least one of a bone and a ligament and interface with the pair of intersecting flat planar surfaces formed on the bone.

Claim 21 has been cancelled.

Claim 22 has been cancelled.

Claim 26 has been cancelled.

Claim 27 has been cancelled.

3. The following is an examiner's statement of reasons for allowance:

The Prior Art does not disclose or suggest a monolithic humeral head resurfacing implant comprising the combination of structural and functional limitations as now recited in each of independent claims 1, 13, and 19, particularly:

A head having:

- a hemispherical exterior articulating surface defining a terminating rim;
- a concave interior surface opposite said hemispherical exterior articulating surface;
- an integral straight anchoring stem having a textured outer surface configured to be directly coupled to bone, said anchoring stem extending from said interior surface and being integral with the interior surface; and

- an extended articulating surface defining a flange axially protruding from only a portion of the terminating rim of said hemispherical exterior articulating surface, said extended articulating surface operable to articulate with at least one of a bone and a ligament, said extended articulating surface having a pair of interior intersecting flat planar surfaces, said interior intersecting flat planar bone bearing surfaces being generally parallel to the integral straight anchoring stem, wherein said extended articulating surface is located in a lateral region of said head when implanted in a patient, and wherein said pair of interior intersecting flat planar surfaces define a planar "V" shaped inner surface defined on the extended articulating surface.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javier G. Blanco whose telephone number is 571-272-4747. The examiner can normally be reached on M-F (9:00 a.m.-7:00 p.m.), first Friday of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on **(571)272-4749**. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Javier G. Blanco/

Examiner, Art Unit 3774

/David H Willse/

Primary Examiner, Art Unit 3738